

Western Electric Co., Incorporated,  
Engineering Dept.,  
New York.

(2 Pages) Page #1.  
Issue 2 - BT-438612.  
Replacing all previous Issues.  
May 26, 1921.

METHOD OF OPERATION  
TELEPHONE CIRCUIT

Sender Monitor - Without Ringing and Incoming Call Circuit Feature - Outgoing Trunk  
Test Board - Machine Switching System.

GENERAL DESCRIPTION

1. This circuit is used at the sender monitor's position with cord circuits arranged for tripping machine ringing. It is provided with a key for disconnecting the monitoring circuit when desired.

DETAILED DESCRIPTION

2. When the talking key in the cord circuit is operated, the TP relay operates on ringing current over the T and R leads. The operation of the TP relay connects ground over the R6 lead operating a relay in the cord circuit. This latter relay operated trips machine ringing releasing the TP relay. With the TP relay released ground is connected to the R2 lead and back on the R3 lead, through the contacts of the talking key in the cord circuit, operating the TP-2 relay. The operation of the TP-2 relay causes the TP-3 relay to operate and lock to ground on the R3 lead. The operation of the TP-3 relay opens the circuit through the TP 2 relay causing it to release, and also closes a circuit through the T relay, causing it to operate and connect the telephone set to the cord circuit. The TP-2 relay is slow in releasing to prevent the T relay from operating until after machine ringing has been tripped. When the talking key is restored to normal the TP-3 relay releases, releasing the T relay, restoring the circuit to normal.

3. When the double plug of the head set is inserted in the telephone jack, the auxiliary alarm circuit is opened.



CIRCUIT REQUIREMENTS

OPERATE

NON-OPERATE

RELEASE

E73  
(TP-3)

Test .027 amp.  
Readj. .013 amp.

Test .0085 amp.  
Readj. .009 amp.

E148  
(T)

Test .038 amp.  
Readj. .018 amp.

Test .013 amp.  
Readj. .014 amp.

E221  
(TP-2)

Test .016 amp.  
Readj. .015 amp.

Test .0020 amp.  
Readj. .0022 amp.

SP1.B6  
D-22583  
Coded  
B215  
(TP)

After a soak of ap-  
proximately .021 amp:  
Test .0014 amp.  
Readj. .0013 amp.

After a soak of ap-  
proximately .021 amp:  
Test .0004 amp.  
Readj. .0004 amp.